

HOWARTH et al. -- 09/601,695  
Attorney Docket: 011765-0302012

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) Scheduling means for data switching apparatus having a plurality of input ports and a plurality of output ports, the scheduling means capable of processing a plurality of interconnection requests, each request requesting interconnection between a subset of said input ports and a subset of respective said output ports, and each request having a respective priority level ( $P_i$ ) which is one of a predetermined number of priority levels; the scheduling means comprising:

determination means for determining a first set of said requests selected from the plurality of requests, according to said respective priority levels; and

a first pipeline stage for receiving only said first set of requests and satisfying at least one of the first set of requests;

a priority mixer for determining a further set of said requests independently of said priority levels, the further set including requests of said first set which were not satisfied and requests included in said plurality of requests which were not part of said first set and which are of any of said priority levels; and

an additional pipeline stage for identifying requests in said further set which can be satisfied, and for satisfying the identified requests.

2. (Previously Presented) Scheduling means according to claim 1 wherein said determination means at any time determines said first set of requests as having the same priority level and wherein said priority level is a selected priority level.

3. (Previously Presented) Scheduling means according to claim 2 wherein the determination means varies the selected priority level with time, and wherein the proportion of time for which the selected priority level takes each of said predetermined number of priority levels is a respective predetermined proportion of time.

4. (Previously Presented) Scheduling means according to claim 1 further comprising at least one further pipeline stage receiving the requests not satisfied by the

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additional pipeline stage, a first of the at least one further pipeline stage receiving the requests not satisfied by the additional pipeline stage, and each of the other at least one further pipeline stages receiving the requests not satisfied by a preceding further pipeline stage.

5. (Previously Presented) Scheduling means according to claim 4 further comprising priority mixer provided before any of said further pipeline stages.

6. (Previously Presented) Scheduling means according to claim 7 which employs a data array ( $CV_i$ ,  $CV_o$ ) defining connections, said pipeline stage satisfying said requests by modifying said data array.

7. (Previously Presented) Scheduling means according to claim 6 wherein upon receiving instructions specifying predetermined connections between at least two of the ports, said data array ( $CV_i$ ,  $CV_o$ ) is modified to include said predetermined connections.

8. (Previously Presented) Scheduling means according to claim 1, further comprising means which, upon receiving instructions to inhibit connections to or from any of the input or output ports, modifies the inputs to the first pipeline stage and priority mixer to prevent connections to or from said inhibited ports.